```
  1  GAATTCCAGGCTGCTAGGAAGTGAAAAGTGAACCTGGACCCAGCTCAGCGGCAGCAGCAG   60

 61  CGGCAGCAGGCAGCAGCCTCTATCCTCTCCTCCAGCCACATGGGCCCCCGGATGGCGCTT  120
                                             MetGlyProArgMetAlaLeu

121  CCCCGCGTGCTCCTGCTCCTGTTCTTGCACCTGTTGCTGCTAGGATGCCGTTCCCATCCA  180
     ProArgValLeuLeuLeuLeuPheLeuHisLeuLeuLeuLeuGlyCysArgSerHisPro
     eProAlaCysSerCysSerCysSerCysThrCysCysCysEndAspAlaValProIleHi
     erProArgAlaProAlaProValLeuAlaProValAlaAlaArgMetProPheProSerT

181  CTGGGTGGCGCTGGCCTGGCCTCAGAACTGCCAGGGATACAGGTGAGCCCTGATGAACTG  240
     LeuGlyGlyAlaGlyLeuAlaSerGluLeuProGlyIleGlnValSerProAspGluLeu
     sTrpValAlaLeuAlaTrpProGlnAsnCysGlnGlyTyrArgEndAlaLeuMetAsnCy
     hrGlyTrpArgTrpProGlyLeuArgThrAlaArgAspThrGlyGluProEndEndThrA

241  CTTAGACTTGGTTGGCTGGGAGGGCGCGGACAGCAGCAACTAACGGGTCCCCACCTACTG  300
     LeuArgLeuGlyTrpLeuGlyGlyArgGlyGlnGlnGlnLeuThrGlyProHisLeuLeu
     sLeuAspLeuValGlyTrpGluGlyAlaAspSerSerAsnEndArgValProThrTyrCy
     laEndThrTrpLeuAlaGlyArgAlaArgThrAlaAlaThrAsnGlySerProProThrV

301  TTCCAAGAGGGCTCTAACCTCCTTTGGGAACTAGTGATAAGGGGTTTAGAAGGCAGCCAG  360
     PheGlnGluGlySerAsnLeuLeuTrpGluLeuValIleArgGlyLeuGluGlySerGln
     sSerLysArgAlaLeuThrSerPheGlyAsnEndEndEndGlyValEndLysAlaAlaAr
     alProArgGlyLeuEndProProLeuGlyThrSerAspLysGlyPheArgArgGlnProG

361  GCTGGGGGTGAGGACCCGCTCCCAAGGCAGTTGGTTCGCTTCAGCACCATCAAGAGTGAT  420
     AlaGlyGlyGluAspProLeuProArgGlnLeuValArgPheSerThrIleLysSerAsp
     gLeuGlyValArgThrArgSerGlnGlySerTrpPheAlaSerAlaProSerArgValMe
     lyTrpGlyEndGlyProAlaProLysAlaValGlySerLeuGlnHisHisGlnGluEndT

421  GGGTCCAGGTGCGAGTTCCTGAGGCTCGGGCTCCCCCACCCATCCCAGGAGCTGCTGGAC  480
     GlySerArgCysGluPheLeuArgLeuGlyLeuProHisProSerGlnGluLeuLeuAsp
     tGlyProGlyAlaSerSerEndGlySerGlySerProThrHisProArgSerCysTrpTh
     rpValGlnValArgValProGluAlaArgAlaProProProIleProGlyAlaAlaGlyP

481  CGCCTGCGAGACAGGGTCTCCGAGCTGCAGGCGACGGACGGACCTGGAGCCCCTCCGGC  540
     ArgLeuArgAspArgValSerGluLeuGlnAlaThrGlyArgThrTrpSerProSerGly
     rAlaCysGluThrGlySerProSerCysArgArgArgAspGlyProGlyAlaProProAl
     roProAlaArgGlnGlyLeuArgAlaAlaGlyAspGlyThrAspLeuGluProLeuArgG

541  AGGACCGTGGCCTCACAGAAGCCTGGGAGGCGAGGGAAGCAGCCCCCACGGGGGTTCTTG  600
     ArgThrValAlaSerGlnLysProGlyArgArgGlyLysGlnProProArgGlyPheLeu
     aGlyProTrpProHisArgSerLeuGlyGlyGluGlySerSerProHisGlyGlySerTr
     lnAspArgGlyLeuThrGluAlaTrpGluAlaArgGluAlaAlaProThrGlyValLeuG
```

FIGURE 1

601 GGCCCCGCAGTAGCATCTTCCAAGTCCTCCGGGGAATACGCAGCCCCAAGACGATGCGTG 660
GlyProAlaValAlaSerSerLysSerSer
pAlaProGlnEndHisLeuProSerProPro
lyProArgSerSerIlePheGlnValLeuArgGlyIleArgSerProLysThrMetArgA

661 ACTCTGGCTGCTTTGGGCGGAGGCTGGACCGGATCGGCTCCCTCAGCGGCCTGGGCTGCA 720
spSerGlyCysPheGlyArgArgLeuAspArgIleGlySerLeuSerGlyLeuGlyCysA

721 ATGGTGAGCACCCACCCCATTCCCACTGCACGCCCCGGTTAGCATCACTTCTGGGTTTGA 780
snV

781 TGTCTCTGGGACCAAACTCCGAGAAAAGGACACCTGGATATCACTCTTTCTTGTTGCCAG 840

841 TCCTCAAGGCCAAGGAGCGCCTTCCTGGAAAAATTAAATTTGGACAGCATTCACTAGCAT 900

901 GACTATGAGTCCCCACCCACCTTCTCGCCACCCCCTGCCTCTCTCACCCAAGGCGGCAGA 960

961 ATTACTTTAGGATGTAAATTCTGTCATTGCCTGGCTGCCGCTCCTGGGAGCAAAAAGAGA 1020

1021 ACTAAACCTCTTCCCCCTGGTTTCCCCTCAACTGTCTGTGGCTGCAAAGGCAGAGGGCAG 1080

1081 GATCACCAGGGTGATGACAAGTCCCAGCTTACAAGGAGGAAACTCAGGTCCAGAGAGATG 1140

1141 GATTATCCCAAAGCCCCAAACATCCAGTTCTGCTGAAGAAGGCGGGTGGCAGGGGTGGCA 1200

1201 CGTGGTGGGGGAAGCCCAGGTCCTGCCTGCCTCTCACCCTAATGTCATCCTCACCCTCT 1260

1261 CTCTCCCCCCCACAGTGCTCAGGAGGTACTGAGAAGTCCTGGCTGACAACCTCTGTGTCC 1320
alLeuArgArgTyr***

1321 GCTTCTCCAACGCCCCTCCCCTGCTCCCCTTCAAAGCAACTCCTGTTTTTATTTATGTAT 1380

1381 TTATTTATTTATTTATTTGGTGGTTGTATATAAGACGGTTCTTATTTGTGAGCACATTTT 1440

1441 TTCCATGGTGAAATAAAGTCAACATTAGAGCTCTGTCTTTTGAAAAAAAAAAAAAAAAGGA 1500

1501 ATTC 1504

FIGURE 1 (Cont)

Fig. 2: BNP Screening Oligos

```
5'-TCCAGCTGCTTCGGGGGCAGGATGGACAGGATTGGAGCCCAGAGCGGACTGGGCTGTAAC-3'   human ANP
   SerSerCysPheGlyGlyArgMetAspArgIleGlyAlaGlnSerGlyLeuGlyCysAsn-3'   human ANP
   (2)                                                    (21)
   SerGlyCysPheGlyArgArgLeuAspArgIleGlySerLeuSerGlyLeuGlyCysAsn      pig BNP
5'-ACNGGNTGCTTGGGNCGNCGNCTNGACCGNATNGGNTCNCTNTCNGGNCTNGGNTGCAAC-3'   Pig BNP
   TG        T  A    A  A  T    TA         AG T  AG     T      T  T

3'-AGGCCGACGAAGCCCGCGTCCGACCTGTCCTAACCTAGGGACTCGCCTGACCCGACATTG-5'  3351  (minimal)

3'-TCGCCGACGAAGCCGTCTTCTGAGCTGTCTTAGCCGTCGGAGTCGCCGGAGCCGACGTTG-5'  3352  (G/T pref)

3'-AGGTCGACGAAGCCCCCGTCCTACCTGTCCTAACCTCGGGTCTCGCCTGACCCGACATTG-5'  3376  (ANP)
```

FIGURE 2

Fig. 2: hn BNP cDNA (10-13-88)

```
   1  GAATTCCAGGCTGCTAGGAAGTGAAAAGTGAACCTGGACCCAGCTCAGCGGCAGCAGCAGCGGCAGCAGG    70
  71  CAGCAGCCTCTATCCTCTCCTCCAGCCACATGGCCCCCGGATGGCGCTTCCCCGCGTGCTCCTGCTCCT   140
                                   MetGlyProArgMetAlaLeuProArgValLeuLeuLeuLe
 141  GTTCTTGCACCTGTTGCTGCTAGGATGCCGTTCCCATCCACTGGGTGGCGCTGGCCTGGCCTCAGAACTG  210
      uPheLeuHisLeuLeuLeuLeuGlyCysArgSerHisProLeuGlyGlyAlaGlyLeuAlaSerGluLeu
                                   -1 +1                       10
 211  CCAGGGATACAGGTGAGCCCTGATGAACTGCTTAGACTTGGTTGGCTGGGAGGGCGCGGACAGCAGCAAC  280
      ProGlyIleGln
 281  TAACGGGTCCCCACCTACTGTTCCAAGAGGGCTCTAACCTCCTTTGGGAACTAGTGATAAGGGGTTAGAA  350
 351  GGCAGCCAGGCTGGGGGTGAGGACCCCGCTCCCAAGGCAGTTGGTTCGCTTCAGCACCATCAAGAGTGAT  420
 421  GGGTCCAGGTGCGAGTTCCTGAGGCTCGGGCTCCCCCACCCATCCCAGGAGCTGCTGGACCGCCTGCGAG  490
                                                        GluLeuLeuAspArgLeuArgA
                                                                    20.
 491  ACAGGGTCTCCGAGCTGCAGGCGGAGCGGACGGACCTGGAGCCCCTCCGGCAGGACCGTGGCCTCACAGA  560
      spArgValSerGluLeuGlnAlaGluArgThrAspLeuGluProLeuArgGlnAspArgGlyLeuThrGl
                 30.                           40.
 561  AGCCTGGGAGGCGAGGGAAGCAGCCCCCACGGGGGTTCTTGGGCCCCGCAGTAGCATCTTCCAAGTCCTC  630
      uAlaTrpGluAlaArgGluAlaAlaProThrGlyValLeuGlyProArgSerSerIlePheGlnValLeu
           50.                         60.                               70.
 631  CGGGGAATACGCAGCCCCAAGACGATGCGTGACTCTGGCTGCTTTGGGCGGAGGCTGGACCGGATCGGCT  700
      ArgGlyIleArgSerProLysThrMetArgAspSerGlyCysPheGlyArgArgLeuAspArgIleGlyS
                 ↑1             80.↑2                          90.
 701  CCCTCAGCGGCCTGGGCTGCAATGGTGAGCACCCACCCCCATTCCCACTGCACGCCCCGGTTAGCATCAC  770
      erLeuSerGlyLeuGlyCysAsnV
                    100
 771  TTCTGGGTTTGATGTCTCTGGGGACCAAACTCCGAGAAAAGGACACCTGGATATCACTCTTTCTTGTTGC  840
 841  CAGTCCTCAAGGCCAAGGAGCGCCTTCCTGGAAAAATTAAATTTGGACAGCATTCACTAGCATGACTATG  910
 911  AGTCCCCACCCACCTTCTCGCCACCCCCTGCCTCTCTCACCCAAGGCGGCAGAATTACTTTAGGATGTAA  980
 981  ATTCTGTCATTGCCTGGCTGCCGCTCCTGGAGCAAAAAGAGAACTAAACCTCTTCCCCCTGGTTTCCCC  1050
1051  TCAACTGTCTGTGGCTGCAAAGGCAGAGGGCAGGATCACCAGGGTGATGACAAGTCCCAGCTTACAAGGA 1120
1121  GGAAACTCAGGTCCAGAGAGATGGATTATCCCAAAGCCCCAAACATCCAGTTCTGCTGAAGAAGGCGGGT 1190
1191  GGCAGGGGTGGCACGTGGTGGGGGGAAGCCCAGGTCCTGCCTGCCTCTCACCCTAATGTCATCCTCACCC 1260
1261  TCTCTCTCCCCCCCACAGTGCTCAGGAGGTACTGAGAAGTCCTGGCTGACAACCTCTGTGTCCGCTTCTC 1330
                        alLeuArgArgTyr***
                                  106
1331  CAACGCCCCTCCCCTGCTCCCCTTCAAAGCAACTCCTGTTTTTATTTATGTATTTATTTATTTATTTATT 1400
1401  TGGTGGTTGTATATAAGACGGTTCTTATTTGTGAGCACATTTTTTCCATGGTGAAATAAAGTCAACATTA 1470
1471  GAGCTCTGTCTTTTGAAAAAAAAAAAAAAAGGAATTC   1507
```

Figure 3

Mature Pig BNP cDNA (10-13-88)

```
  1  GAATTCCAGGCTGCTAGGAAGTGAAAAGTGAACCTGGACCCAGCTCAGCGGCAGCAGCAGCGGCAGCAGG   70

 71  CAGCAGCCTCTATCCTCTCCTCCAGCCACATGGGCCCCCGGATGGCGCTTCCCCGCGTGCTCCTGCTCCT   140
                                  MetGlyProArgMetAlaLeuProArgValLeuLeuLeuLe

141  GTTCTTGCACCTGTTGCTGCTAGGATGCCGTTCCCATCCACTGGGTGGCGCTGGCCTGGCCTCAGAACTG   210
     uPheLeuHisLeuLeuLeuLeuGlyCysArgSerHisProLeuGlyGlyAlaGlyLeuAlaSerGluLeu
              ↓1
211  CCAGGGATACAGGAGCTGCTGGACCGCCTGCGAGACAGGGTCTCCGAGCTGCAGGCGGAGCGGACGGACC   280
     ProGlyIleGlnGluLeuLeuAspArgLeuArgAspArgValSerGluLeuGlnAlaGluArgThrAspL

281  TGGAGCCCCTCCGGCAGGACCGTGGCCTCACAGAAGCCTGGGAGGCGAGGGAAGCAGCCCCCACGGGGGT   350
     euGluProLeuArgGlnAspArgGlyLeuThrGluAlaTrpGluAlaArgGluAlaAlaProThrGlyVa

351  TCTTGGGCCCCGCAGTAGCATCTTCCAAGTCCTCCGGGGAATACGCAGCCCCAAGACGATGCGTGACTCT   420
     lLeuGlyProArgSerSerIlePheGlnValLeuArgGlyIleArgSerProLysThrMetArgAspSer
                                                                    ↓2
421  GGCTGCTTTGGGCGGAGGCTGGACCGGATCGGCTCCCTCAGCGGCCTGGGCTGCAATGTGCTCAGGAGGT   490
     GlyCysPheGlyArgArgLeuAspArgIleGlySerLeuSerGlyLeuGlyCysAsnValLeuArgArgT

491  ACTGAGAAGTCCTGGCTGACAACCTCTGTGTCCGCTTCTCCAACGCCCCTCCCCTGCTCCCCTTCAAAGC   560
     yr***

561  AACTCCTGTTTTTATTTATGTATTTATTTATTTATTTATTTGGTGGTTGTATATAAGACGGTTCTTATTT   630

631  GTGAGCACATTTTTTCCATGGTGAAATAAAGTCAACATTAGAGCTCTGTCTTTTGAAAAAAAAAAAAAAA   700

701  GGAATTC   707
```

Figure 4

Dog BNP Gene 12-12-88

```
   1  CGATCAGGGATGTTGGGGCGGAGGAAACGGAGGGAAGGAGGGAGCGGAGGAGGCCCGAGGACTGTTGGTG    70
  71  TCCCCCTCCTGCCCTTTTGGGGCCAGGCCCACTTCTATACAAGGCCTGCTCTCCAGCCTCCACCCCGGCG   140
 141  GGTATGGTGCAGGCGCGGAGGGGCGCATTCCCCCGCCCTGAGCTCAGCGGCCGGAATGCGGCCGATAAAT   210
 211  CAGAGATAACCCCAGGCGCGGGATAAGGGATAAAAAGCCCCCGTTGCCGCGGGATCCAGGAGAGCACCCG   280
 281  CGCCCCAAGCGGTGACACTCGACCCCGGTCGCAGCGCAGCAGCTCAGCAGCCGGACGTCTCTTTCCCCAC   350
 351  TTCTCTCCAGCGACATGGAGCCCTGCGCAGCGCTGCCCCGGGCCCTCCTGCTCCTCCTGTTCTTGCACCT   420
                    MetGluProCysAlaAlaLeuProArgAlaLeuLeuLeuLeuLeuPheLeuHisLe
 421  GTCGCCACTCGGAGGCCGCCCCCACCCGCTGGGCGGCCGCAGCCCCGCCTCGGAAGCCTCGGAAGCCTCA   490
      uSerProLeuGlyGlyArgProHisProLeuGlyGlyArgSerProAlaSerGluAlaSerGluAlaSer
 491  GAAGCCTCGGGGTTGTGGGCCGTGCAGGTGAGCGCTCAGCCTGCCTGAAGGCCGCGGCGGGTGGCAGCAG   560
 561  GTCACGGGGGCTTAGCCACTGTCCCAAGTCCTCAGTCTCCCTTGGGAATTAGTGATAAGGGAATCAGAAA   630
 631  GTGACGAGATTGGGTGCCAGGACTCCATACCCAAGGCGGCGGCTTCACTTGGGTGCAAGGGTGGTTCCGC   700
 701  CCCGGCGTGGGTTCCTGAGGCTCAGGCCGTCCATTGCAGGAGCTGCTGGGCCGTCTGAAGGACGCAGTTT   770
                                             GluLeuLeuGlyArgLeuLysAspAlaValS
 771  CAGAGCTGCAGGCAGAGCAGTTGGCCCTGGAACCCCTGCACCGGAGCCACAGCCCCGCAGAAGCCCCGGA   840
      erGluLeuGlnAlaGluGlnLeuAlaLeuGluProLeuHisArgSerHisSerProAlaGluAlaProGl
 841  GGCCGGAGGAACGCCCCGTGGGGTCCTTGCACCCCATGACAGTGTCCTCCAGGCCCTGAGAAGACTACGC   910
      uAlaGlyGlyThrProArgGlyValLeuAlaProHisAspSerValLeuGlnAlaLeuArgArgLeuArg
 911  AGCCCCAAGATGATGCACAAGTCAGGGTGCTTTGGCCGGAGGCTGGACCGGATCGGCTCCCTCAGTGGCC   980
      SerProLysMetMetHisLysSerGlyCysPheGlyArgArgLeuAspArgIleGlySerLeuSerGlyL
 981  TGGGCTGCAATGGTAAGCCGCCTCCCTGCCGCCTTGGCTCCCCCTCCCCAGCCCCCTGGGTTCGACCCTT  1050
      euGlyCysAsnV
1051  GGAACCCCTTCTGGGTTTGTTGTCTCGGGGGATCACACTCTGAGGAAAGGACATCTGGACATCGCTCCTT  1120
1121  CTTGCTGACAGTCCTAAGGGCCAAGGAGTACGTTTCTGGAAATACTACGTGTGGACATCGTTGTCCAGGG  1190
1191  TCCCTACCCACCTCCTAGCCCCCTCCTGCCTCTCGCACCCAAAGGGCAGAATCATCTTAGGATGGAATCA  1260
1261  GTCGTTGTCTGGAAGCATCTCCTTGGAGCAGAAAGAGTCCTAAACATCGTCCTCGTAGCTCTCTCTGTCT  1330
1331  GTCTGTAGCCACGAAGGCAGAGGTCAGGGTCACCAGGGCAGTGATGATTCCCAGTTAACAGAGGAGGAGA  1400
1401  CTGAGGTCTAGAGAGATGGATTATTCCAAAGCCTCAAACATCCAGATCGGCTGAGGGTGGGGTTGGTGGC  1470
1471  AGGGATGGCTCCTGGGCTTGGGAAGCTCGGATCCTGCCTCAGTCTCCCACCTGACGCCATCATCCCCCTC  1540
1541  TCTCTCCTCCCACAGTGCTGAGAAAGTATTAAGGAGGAAGTCCCGACTGCCCACATCTGCATTGGATTCT  1610
```

Figure 5

alLeuArgLysTyr***

1611 TCAGCAGCCCCTGAGCCCCTTGGAAGCAGATCTTATTTATTCGTATTTATTTATTTATTTATTTCGATTG 1680

1681 TTTTATATAAGATGATCCTGACGCCCGAGCACGGATTTTCCACGGTGAAATAAAGTCAACCTTAGAGCTT 1750

1751 CTTTTGAAACCGATTTGTCCCTGTGCATTAAAAGTAACACATCATTTAAAAAAA 1804

Fig 5 (cont)

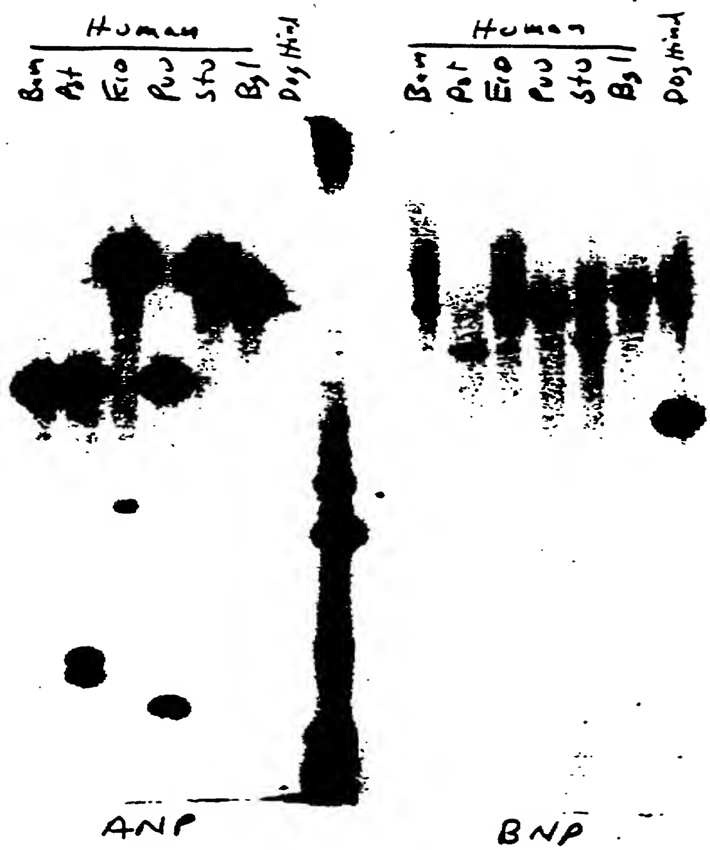


Figure 6

Human BNP Gene 12-12-88

```
   1  CCCACGGTGTCCCGAGGAGCCAGGAGGAGCACCCCGCAGGCTGAGGGCAGGTGGGAAGCAAACCCGGACG    70

  71  CATCGCAGCAGCAGCAGCAGCAGCAGAAGCAGCAGCAGCAGCCTCCGCAGTCCCTCCAGAGACATGGATC   140
                                                                        MetAspP

 141  CCCAGACAGCACCTTCCCGGGCGCTCCTGCTCCTGCTCTTCTTGCATCTGGCTTTCCTGGGAGGTCGTTC   210
      roGlnThrAlaProSerArgAlaLeuLeuLeuLeuLeuPheLeuHisLeuAlaPheLeuGlyGlyArgSe

 211  CCACCCGCTGGGCAGCCCCGGTTCAGCCTCGGACTTGGAAACGTCCGGGTTACAGGTGAGAGCGGAGGGC   280
      rHisProLeuGlySerProGlySerAlaSerAspLeuGluThrSerGlyLeuGln

 281  AGCTCAGGGGGATTGGACAGCAGCAATGAAAGGGTCCTCACCTGCTGTCCCAAGAGGCCCTCATCTTTCC   350

 351  TTTGGAATTAGTGATAAAGGAATCAGAAAATGGAGAGACTGGGTGCCCTGACCCTGTACCCAAGGCAGTC   420

 421  GGTTCACTTGGGTGCCATGAAGGGCTGGTGAGCCAGGGGTGGGTCCCTGAGGCTTGGACGCCCCCATTCA   490

 491  TTGCAGGAGCAGCGCAACCATTTGCAGGGCAAACTGTCGGAGCTGCAGGTGGAGCAGACATCCCTGGAGC   560
               GluGlnArgAsnHisLeuGlnGlyLysLeuSerGluLeuGlnValGluGlnThrSerLeuGluP

 561  CCCTCCAGGAGAGCCCCCGTCCCACAGGTGTCTGGAAGTCCCGGGAGGTAGCCACCGAGGGCATCCGTGG   630
      roLeuGlnGluSerProArgProThrGlyValTrpLysSerArgGluValAlaThrGluGlyIleArgGl

 631  GCACCGCAAAATGGTCCTCTACACCCTGCGGGCACCACGAAGCCCCAAGATGGTGCAAGGGTCTGGCTGC   700
      yHisArgLysMetValLeuTyrThrLeuArgAlaProArgSerProLysMetValGlnGlySerGlyCys

 701  TTTGGGAGGAAGATGGACCGGATCAGCTCCTCCAGTGGCCTGGGCTGCAAAGGTAAGCACCCCCTGCCAC   770
      PheGlyArgLysMetAspArgIleSerSerSerSerGlyLeuGlyCysLysV

 771  CCCGGCCGCCTTCCCCCATTCCAGTGTGTGACACTGTTAGAGTCACTTTGGGGTTTGTTGTCTCTGGGAA   840

 841  CCACACTCTTTGAGAAAAGGTCACCTGGACATCGCTTCCTCTTGTTAACAGCCTTCAGGGCCAAGGGGTG   910

 911  CCTTTGTGGAATTAGTAAATGTGGGCTTATTTCATTACCATGCCCACAATACCTTCTCCCCACCTCCTAC   980

 981  TTCTTATCAAAGGGGCAGAATCTCCTTTGGGGGTCTGTTTATCATTTGGCAGCCCCCCAGTGGTGCAGAA  1050

1051  AGAGAACCAAACATTTCCTCCTGGTTTCCTCTAAACTGTCTATAGTCTCAAAGGCAGAGAGCAGGATCAC  1120

1121  CAGAGCAATGATAATCCCCAATTTACAGATGAGGAAACTGAGGCTCAGAGAGTTGCATTAAGCCTCAAAC  1190

1191  GTCTGATGACTAACAGGGTGGTGGGTGGCACACGATGAGGTAAGCTCAGCCCCTGCCTCCATCTCCCACC  1260

1261  CTAACCATCATCACCCTCTCTCTTTCCCTGACAGTGCTGAGGCGGCATTAAGAGGAAGTCCTGGCTGCAG  1330
                                        alLeuArgArgHis***

1331  ACACCTGCTTCTGATTCCACAAGGGGCTTTTTCCTCAACCCTGTGGCCCTCATCTTTCCTTTGGAATTAG  1400

1401  TGATAAAGGAATCAGAAAATGGAGAGACTGGGTGCCCTGACCCTGTACCCAAGGCAGTCGGTTCACTTGG  1470

1471  GTGCCATGAAGGGCCTGGTGAGCCAGGGGTTGGGTCCCTGAGGCTTTTA   1519
```

Figure 7

Pig PreproBNP
Dog PreproBNP
Human PreproBNP

```
                                     10                                  20
1  Met Gly Pro Arg Met Ala Leu Pro Arg Val Leu Leu Leu     Leu Phe Leu His Leu Leu Leu
2  --- Glu --- Cys Ala --- --- --- --- Ala --- --- --- Leu --- --- --- --- --- Ser Pro
3  --- Asp --- Gln Thr --- Pro Ser --- Ala --- --- --- --- --- --- --- --- --- Ala Phe
                                     30                                  40

   Leu Gly Cys Arg Ser His Pro Leu Gly Gly Ala Gly Leu Ala Ser Glu Leu Pro Gly Ile
   --- --- Gly --- Pro --- --- --- --- --- Arg Ser Pro --- --- --- Ala Ser Glu Ala
   --- --- Gly --- --- --- --- --- --- Ser Pro --- Ser --- --- Asp --- Glu Thr Ser
                       ↑SP
       ↓1                            50                                  60
   Gln Glu Leu Leu Asp Arg Leu Arg Asp Arg Val Ser Glu Leu Gln Ala Glu Arg Thr Asp
   Ser --- --- --- Gly --- --- Lys --- Ala --- --- --- --- --- --- --- Gln Leu Ala
   Gly --- Gln Arg Asn His --- Gln Gly Lys Leu --- --- --- --- Val --- Gln --- Ser
      ↑Leu Gln
                                     70                                  80
   Leu Glu Pro Leu Arg Gln Asp Arg Gly Leu Thr Glu Ala Trp Glu Ala Arg Glu Ala Ala
   --- --- --- --- --- His Arg Ser His Ser Pro Ala --- --- Pro --- --- Gly Gly Thr
   --- --- --- --- Gln Glu Ser Pro Arg Pro --- Gly Val --- Lys Ser --- --- Val ---

                                     90                                  100
   Pro Thr Gly Val Leu Gly Pro Arg Ser Ser Ile Phe Gln Val Leu Arg Gly Ile Arg Ser
   --- Arg --- --- --- Ala --- His Asp --- Val Leu --- Ala --- --- Arg Leu --- ---
   Thr Glu --- Ile Arg Gly His --- Lys Met Val Leu Tyr Thr --- --- Ala Pro --- ---
                                                                            ↑1
                                     110                                 120
   Pro Lys Thr Met Arg Asp Ser Gly Cys Phe Gly Arg Arg Leu Asp Arg Ile Gly Ser Leu
   --- --- Met --- His Lys --- --- --- --- --- --- --- --- --- --- --- --- --- ---
   --- --- Met Val Gln Gly --- --- --- --- --- --- Lys Met --- --- --- Ser --- Ser
           ↑?          ↑2
                                     130 131
   Ser Gly Leu Gly Cys Asn Val Leu Arg Arg Tyr
   --- --- --- --- --- --- --- --- --- Lys ---
   --- --- --- --- --- Lys --- --- --- --- His
```

Figure 8